

Effect of Residents' Attitude on their Perceived Effects of Tourism and Support for Sustainable Tourism

T. Biju^{1*}, Biju Gopal², A. D. Rajeev Kumar³ and F. Sanu⁴

¹Associate Professor of Commerce, University of Kerala, Thiruvananthapuram - 695581, Kerala, India

²Assistant Professor of Commerce, Government College, Ambalapuzha - 688561, Kerala, India

³Associate Professor of Commerce, Government College, Ambalapuzha - 688561, Kerala, India

⁴Research Scholar in Commerce, University of Kerala, Thiruvananthapuram - 695581, Kerala, India

Abstract

Amidst sustainable tourism gaining momentum globally, the present study analyses the effect of perceived positive and negative effects of tourism on the support for sustainable tourism among the resident community at an internationally renowned responsible tourism destination, Kumarakom in Kerala. Data collected through a structured questionnaire from 276 respondents residing in and around the destination was used for analysis. Based on a comprehensive review, a theoretical model depicting the relationship between the variables of interest was developed for empirical validation. Appropriate constructs for the model were identified through Exploratory Factor Analysis (EFA). Then, Confirmatory Factor Analysis (CFA) was performed to evaluate the measurement model validity. Structural Equation Modelling employing the Partial Least Squares (PLS) method was applied to test the hypothesized model. The study established a significant effect of residents' perception of the positive and negative effects of responsible tourism on their support for tourism development. The study provided evidence for the negative effect on residents' perception of the adverse effects of tourism on support for tourism development. The study provides essential inputs for planners and policymakers in realigning sustainable tourism initiatives in such a way as to garner the support of the resident community. It also empirically validates a theoretical model outlining how the perception of residents on the positive and negative effects of tourism influences their support for sustainable tourism.

Keywords: Perceived Effects of Tourism, Residents' Attitudes, Resident Support, Sustainable Tourism, Tourism Development

1. Introduction

The growing demand triggered by the offshoots of industrialisation, such as faster means of transport, a rising middle class with higher disposable income, and paid vacations, led to the emergence of mass tourism worldwide. Tourism became large-scale by attracting low and medium-income travellers through low-cost tourism services in a standardised form with minimal facilities (Williams, 2010). As a result, the size and scope of tourism have grown enormously,

turning it into one of the largest industries in the world. For instance, in 2020, travel and tourism directly contributed nearly 4.7 trillion USD to the global GDP (Statista.com, 2022). Undoubtedly, mass tourism bestowed enormous benefits to resident communities at destinations, particularly on the economic front. However, the unbridled growth of mass tourism has amplified its negative impact, raising serious concerns about sustainability. It paved the way for responsible tourism, an alternative form of tourism, substituting mass tourism.

*Email: biju@keralauniversity.ac.in

Endorsing its unwavering commitment to sustainability, Kerala became the pioneer state in India to implement responsible tourism initiatives. On a policy note, the Kerala Declaration on Responsible Tourism recognised that all forms of tourism must be more responsible and urged all the stakeholders to comply with the UN World Tourism Organisation's Global Code of Ethics. The state embraced the priorities and principles assigned in the Cape Town Declaration to strive to create better places for people to live in and visit. The action plans in this regard included education and learning among the professionals and local communities, campaigning, and awareness-raising, ensuring responsible media interventions, local community empowerment, responsible behaviour towards sustainable development, and good governance (Goodwin, 2008). In the first phase, Kerala implemented responsible tourism at four destinations, including Kumarakom, which later emerged as an internationally recognised model. Kumarakom is also one of the two responsible tourism models monitored by the World Tourism Organisation to see if it could be replicated anywhere in the world (Basheer, 2013). The responsible tourism destinations in Kerala showcase the 'Village Life Experience' that allows tourists to experience true and natural life intimately. For instance, the tourists can watch the toddy tappers tapping toddy from coconut trees, enjoy a ride in the country boat, engage in bow-and-arrow fishing, and many others. Concepts of natural farming and conscious eating, sustainable practices, gender balance among employees, minimal water consumption, safe waste management, etc. are practised routinely at destinations. These initiatives are designed to encapsulate the core idea of responsible tourism to provide a better experience for tourists by addressing the stake of residents, critical for their support. The growing tourism literature reinforces the need for resident community support in ensuring sustainable development. How to gain community support for sustainable tourism development cannot be thought of without understanding their attitude and perceived positive and negative impacts. Given the context, the study is carried out to assess the effect of residents' attitudes on their perceived impacts and how in turn it affects their support for sustainable tourism.

2. Literature Review

2.1 Way to Sustainable Tourism

Tourism has several adverse economic, social, cultural, and environmental impacts (Khan, 1997), and both positive and negative effects of tourism increase with the increasing levels of tourism activity (Long *et al.*, 1990). There is also evidence suggesting a direct link between tourist arrivals at a destination and the deterioration of its attractiveness (Russo, 2001). Moreover, mass tourism negatively impacts local agriculture in three ways: Loss of agricultural land, withdrawal of labour from agriculture, and the import of food to replace local items (Hall, 1994). Many tourist destinations have struggled to overcome the negative effects of rapid and uncontrolled mass tourism expansion driven by short-term profit motives (Dimitriou, 2017). All these paved the way for sustainable tourism policies, which counteract the feeding points of the vicious cycle of mass tourism (Russo, 2001). Sustainable tourism aims to cover the entire tourism experience, including economic, social, and environmental concerns while improving tourists' experience and addressing the needs of the local community. As an alternative to mass tourism, responsible tourism calls for individuals, organisations, and businesses to take responsibility for their actions and contribute to sustainable tourism development (Goodwin, 2019). Though the adoption of responsible tourism practices in India remains patchy, the model has the potential to ensure local benefits and control, empower local communities and create a viable market (Goodwin, 2019).

2.2 Residents' Attitude towards Tourism

The attitudes and support of residents play a crucial role in the success of sustainable tourism development. As a result, the evaluation of resident attitudes toward tourism development becomes an essential theme in tourism studies (Fredline & Faulkner, 2000; Sirakiya *et al.*, 2002). Studies report residents' community attachment and their eco-centric values as key factors that shape their attitudes towards tourism activities (Jurowski *et al.*, 1997; Gursoy *et al.*, 2002; Gursoy & Rutherford, 2004). Community attachment, which refers to the emotional connection and sense of belonging that

residents have towards their community, is a pivotal factor influencing their attitudes and perceptions of tourism activities (Agüera *et al.*, 2020). Residents' attachment to the community they live in affects their perception of the effects of tourism and ultimately their support towards its development (Um and Crompton, 1987; Davis *et al.*, 1988). Eco-centric attitudes, characterised by a concern for the environment and a desire to minimise the environmental costs associated with tourism (Ngan *et al.*, 2022), also play a crucial role in supporting and promoting sustainable tourism development (Ngan *et al.*, 2022; Chubchuwong *et al.*, 2014). Studies provide shreds of evidence for the linkage between the residents' eco-centric values and their perception of tourism's possible positive and negative impacts (Jurowski *et al.*, 1997; Gursoy *et al.*, 2002). For instance, Gursoy and Rutherford (2004) found that residents with high eco-centric attitudes were concerned about both social and economic impact. By challenging the traditional tourism-centric discourse, eco-centric values encourage the adoption of more sustainable-oriented approaches in tourism governance (Lindström, 2020). Furthermore, eco-centric values drive eco-innovation in the tourism industry, which involves the development and implementation of new products, services, processes, and business models with a positive environmental impact (Al-Hanakta *et al.*, 2023). Ultimately, understanding how residents' attitudes shape their perception is essential in better explaining its linkages with the support for sustainable tourism development.

2.3 Perceived Impacts and Support for Development

Gunn (1994) points out that the residents are the major players in the tourism development process as they are the ones most affected by its development. Hence, the cooperation of host communities is an essential element of tourism development (Murphy, 1985). The focus on the sustainability of tourism practices views resident support as its foundation (Butcher, 1997). Residents' perceptions of sustainable tourism development, including economic, social, environmental, and physical benefits, can significantly influence their intentions to support tourism (Bajrami *et al.*, 2020). Similarly, residents' satisfaction or dissatisfaction with

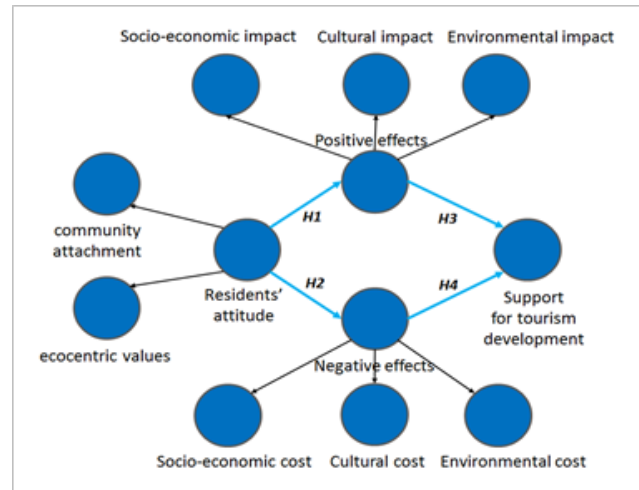


Figure 1. Conceptual model.

tourism impacts can also influence their behaviour to support or not support tourism development (Nazneen *et al.*, 2019). In essence, residents' perceptions of the positive and negative impacts of tourism development play a significant role in their support or non-support for tourism development. Positive perceptions of tourism, such as recognising economic and socio-cultural benefits, are associated with higher levels of support (Akay, 2022). Conversely, negative perceptions of tourism impacts, such as environmental degradation or overcrowding, can lead to lower support for tourism development (Kodaş *et al.*, 2022). The support of the host community for tourism development is influenced by a host of factors as the level of community attachment, eco-centric values, economic benefits, social benefits, and costs, cultural beliefs, etc (Gursoy & Rutherford, 2004; Jurowski *et al.*, 1997). Previous studies have highlighted socio-economic, environmental, and cultural benefits as positive impacts of tourism (Andereck and Vogt, 2000; Ap & Crompton, 1998; Choi & Sirakiya, 2005; Gursoy & Rutherford, 2004; Ko & Stewart, 2002; Sirakiya *et al.*, 2002), and socioeconomic, environmental, and cultural costs as negative impacts of tourism (Andereck & Vogt, 2000; Choi & Sirakiya, 2005; Gursoy & Rutherford 2004; Ko & Stewart 2002).

It is imperative that all the stakeholders in tourism must take up their share of the responsibility to achieve sustainability goals. Among these stakeholders,

residents of the destination community play a vital role in ensuring sustainability and the future development of sustainable tourism projects. A study conducted by Seal *et al.*, (2021) in Kerala highlights the importance of involving local stakeholders in decision-making processes. The attitude and perception of residents towards the benefits and costs of sustainable tourism initiatives will influence their decisions to support or not support such projects. In Kerala, residents have actively supported and participated in responsible tourism initiative, which has received great attention in recent years as a means for minimising negative impacts and enhancing positive impacts on the environment, culture, and local communities (Sanuja & Joseph, 2022). However, there has been a dearth of studies in the context of Kerala analysing the local community perception and how they affect their support, which is critical for ensuring sustainable tourism development in the region. To fill this gap, the study proposes a conceptual model (Figure 1), derived from the literature review to examine the effect of residents' attitudes on their perceived positive and negative effects of tourism, and in turn, their effects on support for tourism development. Based on this model, four research hypotheses were framed for testing their significance.

H₁: Residents' attitude has a significant effect on their perceived positive effects of tourism.

H₂: Residents' attitude has a significant effect on their perceived negative effects of tourism.

H₃: Perceived positive effects of tourism have a significant positive effect on support for sustainable development.

H₄: Perceived negative effects of tourism have a significant negative effect on support for sustainable development.

3. Methodology

By design, the study is descriptive and analytical in nature. Residents of the different tourism sites of the responsible tourism destination at Kumarakom

in Kerala, including days with farmers, village life experiences, birdwatching, and backwater cruises formed the population for the study. Households in and around the various sites at the destination were the sample frame. With their continuous and close interactions with tourists, they can have a very clear perception regarding the effects of responsible tourism. One adult member of the family residing in the vicinity of responsible tourism sites formed the sampling element for the study. A Systematic random sampling technique was used for the selection of the sample. With a representation of 15 per cent, data was collected from 300 resident community households through a structured questionnaire. Out of the administered questionnaires, 287 were received back, and the final number after removing incomplete and inconsistent ones was 276.

3.1 Survey-Instrument Development

The measurement variables were identified through a thorough review of the literature and adequately reinforced through personal discussions with residents in Kumarakom. Fifteen residents were selected for discussion to generate preliminary insights into their attitudes, perceptions of the positive and negative effects of tourism, and their support for tourism development. The different dimensions and indicators for measuring latent constructs, namely Residents' attitudes, the Positive effect of tourism, the Negative effect of tourism, and Support for tourism development were sourced from previous studies (Table 1). All the indicators were anchored on a five-point Likert-type scale ranging from strongly disagree (score = 1) to strongly agree (score = 5).

3.2 Data Analysis

How residents' attitudes towards tourism impacted their perception of the tourism effects, and how this subsequently affected their support for sustainable tourism was studied using Structural Equation Modelling (SEM), a powerful technique for analysing the complex relations between latent constructs. To ensure the data was appropriate for analysis, the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's Test of Sphericity were examined.

Table 1. Survey instrument development: Variables and sources

Construct	Dimensions	No. of items/ variables	Sources of Adoption
Residents' attitude	Community attachment	4	Jurowski, Uysal, and Williams (1997); Gursoy, Jursowski and Uysal (2002); Gursoy and Rutherford (2004).
	Eco-centric values	4	
Positive Effects of Tourism	Socio-economic impact	10	Ap and Crompton (1998); Andereck and Vogt (2000); Ko and Stewart (2002); Gursoy and Rutherford (2004); Choi and Sirakiya (2005).
	Environmental impact	11	Ap and Crompton (1998); Ko and Stewart (2002); Choi and Sirakiya (2005)
	Cultural impact	7	Gursoy and Rutherford (2004); Sirakiya, Teye, and Sonmez (2002)
Negative Effects of Tourism	Socio-economic cost	5	Gursoy and Rutherford (2004); Choi and Sirakiya (2005); Andereck and Vogt (2000)
	Environmental cost	5	Andereck and Vogt (2000); Ko and Stewart (2002)
	Cultural cost	4	Gursoy and Rutherford 2004; Ko and Stewart (2002)
Support for tourism development		6	Gursoy and Rutherford (2004); Sirakiya, Teye, and Sonmez (2002)

Source: Author compiled

The appropriate constructs for the model were then identified through Exploratory Factor Analysis (EFA) with Principal Component Analysis (PCA). Cronbach's alpha was computed to ensure the reliability of the measures. A minimum factor loading of 0.5 was used as the threshold for elimination. EFA was performed using SPSS Statistics 20. After the preliminary analysis of data to ensure suitability, SEM employing the Partial Least Squares (PLS) method was applied to test the hypothesised model. Identification of missing values, outliers, normality of data, measurement error, and multicollinearity was analysed. Further, Confirmatory Factor Analysis (CFA) was performed to evaluate the measurement model's validity. The relationships between the indicators and the latent variables were evaluated in the CFA. The goodness of fit of the measurement model was evaluated through the computation of indicator reliability, construct reliability (Cronbach's alpha, composite reliability), convergent validity (Average Variance Explained (AVE), item

loadings), and discriminant validity (Cross loadings, Fornell-Larcker criterion, Heterotrait-Monotrait ratio). Since the measurement model consisted of hierarchical order components, the Disjoint Two-Stage approach was employed for model evaluation. The structural model assessment was made through tolerance level, Variance Inflation Factor (VIF), path coefficients, and coefficient of determination (R^2). The measurement model evaluation and structural model assessment were done using Smart PLS 3.0.

4. Results and Discussion

The sample size for simple structural modelling can be quite small (Hoyle, 1999), with samples of 100 per group (Kline, 2005). Sample size adequacy for the study was examined using G*Power software as recommended by Faul, Erdfelder, Lang and Buchner (2007), and the required sample size was found to be 119. The actual sample used for analysis was 276,

proving the sample size adequacy. The measures of skewness and kurtosis were examined, and the values were found to be within ± 1.00 in all cases across all variables under study. Thus, the normality of data was proven to exist. Outliers in the data were examined through box plots and were removed from the final analysis. Harman single factor test was run to check the existence of measurement error (common method bias). It was found that a single factor accounted for only 17 per cent of the total variance, so it is concluded that the measurement was free from common method bias.

4.1 Evaluation of Measurement Model

The measurement model represents a set of observable variables as indicators of a smaller set of latent variables, which are common factors. The measurement model is a confirmatory factor model, where the latent variables are simply factors. The two main criteria used to evaluate the measurement model are validity and reliability (Ramayah, Lee & In, 2011). Reliability tries to find out the stability of the measuring instrument. Reliability is subdivided into construct reliability and indicator reliability; construct reliability is measured using Cronbach's alpha and composite reliability. Cronbach's alpha values need to be 0.70 or higher for good reliability (Nunnally & Beinstein, 1994). A score of at least 0.6 or 0.7 is a good measure of composite reliability (Henseler & Sarstedt, 2013). For indicator reliability, the outer loadings should be above 0.70 (Hulland, 1999). Validity is an attempt to identify how accurately the instrument measures a particular concept it is supposed to measure (Sekaran & Bougies, 2010). Validity is composed of convergent validity and discriminant validity. Convergent validity can be measured by Average Variance Extracted (AVE) and item loadings (Hair *et al.*, 2014). AVE of more than 0.5

is acceptable (Barclay *et al.*, 1995). Item loadings need to be above 0.708 (Hair *et al.*, 2014). Discriminant validity can be assessed by cross-loadings among constructs and the Fornell-Larcker criterion (Ramalu & Janadari, 2018). Cross loadings need to be very low on other constructs that it does not measure (Vinzi *et al.*, 2010). Fornell-Larcker criterion measure for each latent variable needs to be higher than the correlation between other constructs (Fornell & Larcker, 1981).

The higher values of the KMO test (>0.70) for sampling adequacy and the significant p values ensured that the data is fit for factor analysis (Table 2). The factor loadings for all the items indicating the latent constructs, community attachment, eco-centric values, socio-economic impact, environmental impact, cultural impact, socio-economic cost, environmental cost, cultural cost, and support for tourism development were above 0.70 and this endorses the strong relationship between items and underlying constructs.

The indicator reliability values for most of the items were more than 0.70 and in none of the cases, it was below 0.40, establishing that the latent constructs are capable of sufficiently explaining the variance in indicators. The Cronbach's alpha and Composite reliability values for all the constructs were higher than 0.70, proving the reliability of the scale as the individual indicators are highly related to the corresponding factor (Table 3 and Table 4). The AVE values (>0.50) and item loadings (>0.70) for all the constructs prove the convergent validity (Table 5). The cross-loadings were found to be below 0.70, implying that constructs do not relate to other constructs (Table 6). Fornell-Larcker criterion measures for latent constructs were higher than the correlation between other constructs (Table 5). The HTMT values were also less than the limit of

Table 2. Kaiser-Meyer-Olkin and Bartlett's Test of Sphericity

Construct	KMO	Bartlett's Sphericity Test	
		Chi ²	p-value
Resident attitude	0.743	1245.433	0.000
Positive effect of tourism	0.813	6654.685	0.000
Negative effect of tourism	0.808	2670.065	0.000

0.85 (Table 7). The values for cross-loadings, Fornell-Larcker criterion and HTMT establish the discriminant validity of the model. All the goodness of fit measures confirms the validity and reliability measurement model; hence the study could proceed to assess the structural model.

4.2 Assessment of Structural Model

Assessment of the structural model includes an examination of relationships between the constructs, and the predictive capabilities of the model (Hair *et al.*, 2014). The existence of multicollinearity among predictor pairs must be examined first, and two or more variables are collinear if they measure the same

underlying attribute of an object (Miller & Wichem, 1977). Multi-collinearity is considered a type of disturbance in data and causes statistical inferences to be unreliable (Garson, 2016). Collinearity is usually evaluated as a predictor-predictor relationship, where two or more predictors are checked for redundancy (Kock & Lynn, 2012). It is measured by: (i) Tolerance Level: A value less than 0.2 is indicative of Multicollinearity, and (ii) Variance Inflation Factor (VIF): A value above 5 indicates Multicollinearity. In the model, the perceived positive effects and negative effects of tourism are the predictor pairs predicting support for tourism development hence they were tested for collinearity. The tolerance level was 0.993

Table 3. Lower order components: Factor loadings and reliability measures

1 st Order Construct	Indicators	F. L	I.R	C.R	Cr. Alpha
Community Attachment	I feel very much at home in this community	0.790	0.624	0.908	0.865
	I am conscious of what happens in the community	0.855	0.731		
	I will be unhappy to move away from this community	0.877	0.769		
	I am extremely satisfied with the community	0.853	0.728		
Eco-centric Values	Balance of nature is Delicate and can be easily upset	0.836	0.699	0.911	0.870
	Humans are abusing the natural environment	0.883	0.780		
	Face Ecological disaster unless care is taken	0.865	0.748		
	Natural ecosystems are not strong enough for industrial impact	0.809	0.654		
Socio-economic Impact	Tourism, directly and indirectly, contributes to the economy	0.876	0.767	0.781	0.741
	Provides Decent Work/Career Opportunities	0.857	0.734		
	Provides training and employment opportunities	0.761	0.579		
	Small businesses are given free market access	0.856	0.733		
	Local farmers, artisans etc. can engage in the value chain	0.891	0.794		
	Businesses and tourists support the local community	0.851	0.724		
	Law and enforcement agencies to prevent exploitation and harassment	0.856	0.733		
	Laws to protect property rights/ compensation are enforced	0.871	0.759		
	Security and health services are active	0.756	0.572		
	Sites are communicated and accessible to all	0.797	0.635		

Environmental Impact	Active programs to conserve biodiversity and natural heritage	0.849	0.721	0.879	0.849
	Guidelines for visitor behavior to tourists, operators, and guides	0.812	0.659		
	Cooperation of local conservation agencies to monitor environmental risks	0.913	0.834		
	Non-invasive & responsibly managed visitor interaction with nature & wildlife	0.758	0.575		
	Laws to prevent trading, capturing, or killing of wildlife are enforced	0.835	0.697		
	Formal measures to improve energy consumption efficiency	0.769	0.591		
	Mechanisms are in force to monitor water quality, water usage, and water risks	0.864	0.746		
	Guidelines are enforced for wastewater treatment	0.819	0.671		
	Guidelines are enforced on avoiding, reusing reducing, and recycling solid waste	0.882	0.778		
	Businesses are encouraged to reduce greenhouse gas emissions	0.842	0.709		
	Use of alternative transport systems to reduce air & noise Pollution	0.888	0.789		
Cultural Impact	Cultural and heritage assets are conserved and protected	0.894	0.799	0.816	0.806
	Communication of laws on sale, display of historical, and archaeological artifacts	0.781	0.610		
	Support for the celebration and protection of cultural heritage	0.718	0.516		
	Local community has unrestricted access to natural and cultural sites	0.814	0.663		
	Rights of communities/individuals are protected while creating cultural experiences for tourists	0.873	0.762		
	Tourism-related impacts are managed in cultural sites through guidelines	0.854	0.729		
	Accurate materials on the sites visited are provided to tourists	0.805	0.648		
Socio-economic Cost	Increase in crime rate and anti-social activities in community and locality	0.836	0.699	0.655	0.722
	Higher friction between locals and tourists	0.891	0.794		
	Negative impact on the local way of life	0.750	0.563		
	Native residents are exploited and discriminated	0.852	0.726		
	Social burdens like roadblocks, over-crowding	0.781	0.610		
Environmental Cost	Can cause damage to the natural environment	0.822	0.676	0.79	0.823
	Can increase environmental contamination (waste generation)	0.850	0.723		
	Can increase noise, water, and air pollution	0.760	0.578		
	Native species of plants and animals can be harmed	0.878	0.771		
	Energy consumption can increase and become inefficient	0.706	0.498		
Cultural Cost	Can negatively affect local culture, traditions	0.845	0.714	0.786	0.712
	Illegal trade in cultural, and historical artefacts	0.805	0.648		
	Visitor intensity can damage cultural sites	0.751	0.564		
	Local artists and craftsmen can be exploited	0.816	0.666		

F.L (Factor Loading), I.R (Indicator Reliability), C.R (Composite Reliability), Cr Alpha (Cronbach's Alpha)

Table 4. Support for tourism development: Factor loadings and reliability measures

Latent Construct	Indicator	F. L	I.R	C.R	Cr. Alpha
Support for Tourism Development	New nature-based tourism facilities and sites should be developed in the locality	0.802	0.643	0.884	0.846
	More cultural and historical based activities should be included to promote tourism	0.748	0.560		
	Tourism can play an increased role in future local economic development	0.759	0.576		
	Tourism will help the community prosper in the right direction	0.771	0.594		
	More tourists should come to the locality in the future	0.821	0.674		
	Tourism should be the most important industry in the locality	0.783	0.613		

F.L (Factor Loading), I.R (Indicator Reliability), C.R(Composite Reliability), Cr Alpha (Cronbach's Alpha)

Table 5. AVE and Fornell-Larcker Measures

Latent Constructs	AVE	Fornell-Larcker Measure											
		Latent Constructs											
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Community Attachment (1)	0.713	0.844											
Eco-centric Values (2)	0.721	0.564	0.849										
Socioeconomic impact (3)	0.794	.		0.77									
Environmental impact (4)	0.74			0.517	0.719								
Cultural impact (5)	0.733			0.619	0.655	0.809							
Socioeconomic cost (6)	0.632						0.794						
Environmental cost (7)	0.601						0.094	0.775					
Cultural cost (8)	0.689						0.078	0.238	0.83				
Resident Attitude (9)	0.795									0.891			
Positive effects of tourism (10)	0.634									0.208	0.796		
Negative effects of tourism (11)	0.611									0.701	0.13	0.781	
Support for tourism development (12)	0.59									0.057	0.286	0.025	0.767

Table 6. Cross loadings of indicators

Indicators	Cross Loadings of Indicators			
	Resident Attitude	Positive effect of tourism	Negative effect of tourism	Support for tourism development
Community Attachment	0.907	-0.195	0.438	-0.026
Eco centric Values	0.902	-0.181	0.296	-0.032
Socioeconomic impact	0.11	0.697	0.497	0.01
Environmental impact	0.366	0.849	0.544	0.063
Cultural impact	0.183	0.833	0.498	-0.086
Socioeconomic cost	0.419	-0.025	0.769	-0.081
Environmental cost	0.408	-0.012	0.731	0.02
Cultural cost	0.468	-0.172	0.902	-0.044
Sup_TD01	-0.107	0.225	0.021	0.782
Sup_TD02	-0.106	0.196	-0.041	0.73
Sup_TD03	-0.016	0.155	-0.062	0.77
Sup_TD04	-0.101	0.147	-0.058	0.698
Sup_TD05	-0.024	0.277	0.003	0.825
Sup_TD06	-0.021	0.245	-0.011	0.793

and VIF was 1.007, indicating that the data does not suffer from multicollinearity issues.

The R^2 values of the three dependent variables, positive effects of tourism (0.625), negative effects of tourism (0.281), and support for tourism development (0.490) were high, and found to be statistically significant, implying the better predictability of the model.

Standardised Root Mean Square Residual (SRMR) is the difference between the observed correlation and the model-implied correlation matrix. Thus, it helps to assess the average magnitude of the discrepancies between observed and expected correlations as a measure of the model fit criterion (Henseler *et al.*, 2014). A value less than 0.10 or 0.08 (Hu & Bentler,

1998) is considered a good fit. The SRMR value (0.066) of the model was less than 0.08. The NFI (Bentler & Bonett, 1980) computes the χ^2 value of the proposed model and compares it against a meaningful standard, and the value falls between 0 and 1. The closer the NFI is to 1, the better the fit. The NFI value is more than 0.9. RMS_theta is the root mean squared residual covariance matrix of the outer model residuals (Lohmöller, 1989). This measure can be used only to assess purely reflective models. It assesses the degree to which the outer model residuals correlate and should be close to zero to indicate a good model fit. The RMS theta value is 0.046, very near zero. The overall assessment based on Multicollinearity, R^2 , and model fit indices (SRMR, NFI, RMS_theta) revealed that the structural model has a “good fit”. Thus, it can

Table 7. HTMT Ratios

Latent Constructs	HTMT Ratio											
	Latent Constructs											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Community Attachment (1)	--											
Eco-centric Values (2)	0.6	--										
Socioeconomic impact (3)			--									
Environmental impact (4)			0.428	--								
Cultural impact (5)			0.432	0.805	--							
Socioeconomic cost (6)						--						
Environmental cost (7)						0.119	--					
Cultural cost (8)						0.198	0.269	--				
Resident Attitude (9)									--			
Positive effects of tourism (10)									0.239	--		
Negative effects of tourism (11)									0.216	0.157	--	
Support for tourism development (12)									0.079	0.091	0.211	--

be concluded that the structural model conforms with the theorised model.

4.3 Hypothesis Testing

Path coefficients of the structural model reflect the causal relationships between latent variables (Table 8).

All path coefficients except for the negative effects of tourism on support for tourism development were found to be positive. Path hypothesis (H_1), that ‘residents’ attitude has a significant effect on their perceived positive effects of tourism’ was supported at $t = 2.952$ ($p < 0.001$) with $\beta = 0.647$. Path hypothesis (H_2),

Table 8. Structural model - Path coefficients

Paths	Path Coefficient	t-static	p-value
Resident Attitude -> Positive Effect	0.647	20.952	<0.001
Resident Attitude -> Negative Effect	0.562	14.365	<0.001
Positive Effect -> Support for TD	0.588	16.041	<0.001
Negative Effect -> Support for TD	- 0.322	- 04.130	<0.001

that 'residents' attitude has a significant effect on their perceived negative effects of tourism' was supported at $t = 14.365$ ($p < 0.001$) with $\beta = 0.562$. Path hypothesis (H_3), that 'perceived positive effects of tourism have a significant positive effect on support for sustainable development was supported at $t = 16.041$ ($p < 0.001$) with $\beta = 0.588$. Path hypothesis (H_4), that 'perceived negative effects of tourism have a significant negative effect on support for sustainable development was supported at $t = -04.130$ ($p < 0.001$) with $\beta = -0.322$.

4.4 Discussion of Results

Previous studies have highlighted the importance of understanding and assessing the residents' attitude towards tourism development (Ritchie & Inkari, 2006) and view residents of the local community as the major actors in the tourism development process (Murphy, 1985; Gunn, 1994). Both direct and indirect support of community residents is the foundation for the sustainability of tourism (Jamieson & Jamal, 1997). The findings of the study showed that residents agreed that tourism provides career opportunities (Mean = 4.655) was in conformity with the findings of Rothman (1978), Sheldon and Var (1984), Milman and Pizam (1988), and Ross (1992). Residents also had a high level of agreement on tourism's contribution to the local economy (Mean = 3.818) and this corroborates with the findings of Pizam (1978), Belisle and Hoy (1980), and Liu and Var (1986). However, a low level of agreement about the possibility of tourism causing an increase in anti-social activities (Mean = 2.145) and friction between locals and tourists (1.931), were not in tune with the previous studies seriously concerned about such ill effects (Belisle & Hoy, 1980; Rothman, 1978). The finding of the study that tourism contributes to the preservation of historic sites (Mean = 3.996) supported the findings of Liu, Sheldon, and Var (1987), and Sariskumar and Thangamani (2018) and that tourism helps in protecting the local heritage, was same as that of Sudheer (2015).

A significant effect on residents' perception of the positive and negative effects of tourism on their support

for tourism development is established through the study, and this corroborates with the findings of King, Pizam, and Milman (1993). There exists a negative effect on residents' perception of the negative effects of tourism on support for tourism development ($\beta = -0.322$, $p\text{-value} < 0.001$), and this was in conformity with the findings of Perdue, Long, and Allen (1990) and Snaith and Haley (1995). This finding was quite different from the findings of several studies where, though the negative effects were significant, they were positively related to the support for tourism (Andereck and Vogt, 2000).

5. Conclusion

Amidst the sustainable tourism developmental agenda gaining momentum globally, a study on resident community perception and support conducted in an internationally renowned responsible tourism destination gives it contextual relevance of time and place. Tourism stakeholders realise that the success of any form of sustainable tourism practice primarily depends on the support of the resident community. The study provides essential inputs for planners and policymakers in realigning sustainable tourism initiatives in such a way as to garner the support of the resident community. Furthermore, the study contributes to the existing tourism literature by clearly locating its findings in relation to previous research, showing how they conform or contradict. It also empirically validates a theoretical model, outlining how the perception of residents on the positive and negative effects of tourism influences their support for sustainable tourism.

However, the study describes the interplay of attitudes, perceptions, and support for sustainable tourism only from the angularity of residents at a particular destination, giving scope for extending the study to similar destinations for arriving at more meaningful generalisation. Evolving appropriate strategies to foster positive attitudes among residents and improve the positive and mitigate the negative tourism effects can be set as future research agenda, as it would be beneficial not only for the

destination community but also for the entire tourism industry.

6. References

- Agüera, F., Castellanos-Verdugo, M., Guzmán, J., Cobeña, M., Oviedo-García, M. (2020). The mediating effects of community support for sustainable tourism, community attachment, involvement, and environmental attitudes. *Journal of Hospitality and Tourism Research*, 7(46), 1298-321. <https://doi.org/10.1177/1096348020980126>
- Akay, B. (2022). The relationship between tourism development, satisfaction, support to tourism and tourism entrepreneurship in an emerging tourism destination: Residents' perspective. *Journal of Tourism Management Research*, 9(1), 64-81. <https://doi.org/10.18488/31.v9i1.3078>
- Al-Hanakta, R., Hossain, M., Pataki, L., & Dunay, A. (2023). Eco-innovation influence on business performance in Jordanian micro, small and medium enterprises operating in the food processing sector. *Plos One*, 2(18), e0281664. <https://doi.org/10.1371/journal.pone.0281664> PMid:36791057 PMCid:PMC10045584
- Andereck, K. L., & Vogt, C. A. (2000). The relationship between residents' attitudes toward tourism and tourism development options. *Journal of Travel Research*, 39(1), 27-37. <https://doi.org/10.1177/004728750003900104>
- Ap, J., & Crompton, J. L. (1998). Developing and testing a tourism impact scale. *Journal of Travel Research*, 37(2), 120-30. <https://doi.org/10.1177/004728759803700203>
- Bajrami, D., Radosavac, A., Cimbalević, M., Tretiakova, T., & Syromiatnikova, Y. (2020). Determinants of residents' support for sustainable tourism development: Implications for rural communities. *Sustainability*, 12(22), 9438. <https://doi.org/10.3390/su12229438>
- Barclay, D., Thompson, R., & Higgins, C. (1995). The Partial Least Squares (PLS) approach to causal modelling: Personal computer uses as an illustration. *Technology Studies*, 2.
- Basheer, K. P. M. (2013). Taking Stock of India's First Responsible Tourism Initiative. Posted on June 26, 2013. Retrieved from: www.thehindubusinessline.com/news/taking-stock-of-Indias-first-responsible-tourism-initiative/article23115537.ece
- Belisle, F. J., & Hoy, D. R. (1980). The Perceived impact of tourism by residents: A case study in Santa Marta, Colombia. *Annals of Tourism Research*, 7(1), 83-101. [https://doi.org/10.1016/S0160-7383\(80\)80008-9](https://doi.org/10.1016/S0160-7383(80)80008-9)
- Bentler, P., & Bonett, D. (1980). Significance tests and goodness-of-fit in analysis of covariance structures. *Psychological Bulletin*, 88, 588-606. <https://doi.org/10.1037/0033-2909.88.3.588>
- Butcher, J. (1997). Sustainable development or development? In M. J. Stabler, (ed). *Tourism and Sustainability: Principles to Practice* (27-38). New York: CAB International.
- Choi, H. S. C., & Sirakaya, E. (2005). Measuring residents' attitude toward sustainable tourism: Development of sustainable tourism attitude scale. *Journal of travel research*, 43(4), 380-94. <https://doi.org/10.1177/0047287505274651>
- Chubchuwong, M., Beise-Zee, R., & Speece, M. (2014). The effect of nature-based tourism, destination attachment and property ownership on environmental-friendliness of visitors: A study in Thailand. *Asia Pacific Journal of Tourism Research*, 6(20), 656-79. <https://doi.org/10.1080/10941665.2014.925482>
- Davis, D., Allen, J., & Cosenza, R. (1988). Segmenting residents by their attitudes, interests, and opinions toward tourism. *Journal of Travel Research*, 27(3), 2-8. <https://doi.org/10.1177/004728758802700201>
- Dimitriou, C. K. (2017). The quest for a practical approach to mortality and tourism. *Journal of Hospitality and Tourism Management*, 31, 45-51. <https://doi.org/10.1016/j.jhtm.2016.08.001>
- Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioural, and biomedical sciences. *Behavioural Research Methods*, 39(2) 175-91. <https://doi.org/10.3758/BF03193146> PMid:17695343
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Fredline, E., & Faulkner, B. (2000). Host community reactions- A cluster analysis. *Annals of Tourism Research*, 27(3), 763-84. [https://doi.org/10.1016/S0160-7383\(99\)00103-6](https://doi.org/10.1016/S0160-7383(99)00103-6)

- Garson, G. D. (2016). *Partial Least Squares Regression & Structural Model*. Asheboro, NC: Statistical Associates Publishers.
- Goodwin, H. (2008). *Advances in responsible tourism*. ICRT Occasional Paper No. 8. International Centre for Responsible Tourism. Leeds Metropolitan University.
- Goodwin, H. (2019). *Responsible tourism in India*. Retrieved from: <https://news.wtm.com/category/responsible-tourism/Jan.21> Accessed on Jan. 30, 2019.
- Gunn, C. A. (1994). *Tourism Planning: Basics, Concepts, Cases* (3rd Ed.). Taylor and Francis.
- Gursoy, D., & Rutherford, D. G. (2004). Host attitudes toward tourism: An improved structural model. *Annals of Tourism Research*, 31(3), 495–516. <https://doi.org/10.1016/j.annals.2003.08.008>
- Gursoy, D., Jurowski, C., & Uysal, M. (2002). Resident attitudes: A structural modelling approach. *Annals of Tourism Research*, 29(1), 79–105.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (1 ed.). Thousand Oaks, CA: Sage.
- Hall, M. C. (1994). *Tourism in the Pacific Rim*. Melbourne: Longman House, 165-16.
- Henseler, J. & Sarstedt, M. (2013). Goodness-of-fit indices for partial least squares path modelling. *Computational Statistics*, 28(2), 565-80. <https://doi.org/10.1007/s00180-012-0317-1>
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., Ketchen, D. J., Hair, J. F., Hult, G. T. M., & Calantone, R. J. (2014). Common beliefs and reality about partial least squares: Comments on Rönkkö and Evermann (2013). *Organizational Research Methods*, 17(2), 182-209. <https://doi.org/10.1177/1094428114526928>
- Hoyle, R. H. (1999). *Statistical strategies for small sample research*. New York, NY: Sage
- Hu, L.-t., & Bentler, P. M. (1998). Fit indices in covariance structure modelling: Sensitivity to under-parameterized model misspecification. *Psychological Methods*, 3(4), 424-53. <https://doi.org/10.1037/1082-989X.3.4.424>
- Hulland, J. (1999). Use of Partial Least Squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20, 195-204. [https://doi.org/10.1002/\(SICI\)1097-0266\(199902\)20:2%3C195::AID-SMJ13%3E3.0.CO;2-7](https://doi.org/10.1002/(SICI)1097-0266(199902)20:2%3C195::AID-SMJ13%3E3.0.CO;2-7)
- Jamieson, W., & Jamal, T. (1997). Tourism planning and destination management. In C. Gee and E. Fayos-Sola (Eds.) *International Tourism: A Global Perspective*, edited by. Madrid, Spain: World Tourism Organization, 321–37.
- Janadari, M. P. N., Sri Ramalu, S., & Chuah, C. W. (2018). Measurement of organizational citizenship behaviour; reliability and validity in Sri Lankan context. *Kelaniya Journal of Human Resource Management*, 13(1), 1-9. <https://doi.org/10.4038/kjhrm.v13i1.45>
- Jurowski, C., Uysal, M., & Williams, D. R. (1997). A theoretical analysis of host community resident reactions to tourism. *Journal of Tourism Research*, 36(3), 3-11. <https://doi.org/10.1177/004728759703600202>
- Khan, M. M. (1997). Tourism development and dependency theory: mass tourism vs. ecotourism. *Annals of Tourism Research*, 24(4), 988-91. [https://doi.org/10.1016/S0160-7383\(97\)00033-9](https://doi.org/10.1016/S0160-7383(97)00033-9)
- King, B., Pizam A., & Milman A. (1993). Social impacts of tourism: Host perceptions. *Annals of Tourism Research*, 20(4), 650-65. [https://doi.org/10.1016/0160-7383\(93\)90089-L](https://doi.org/10.1016/0160-7383(93)90089-L)
- Kline, R. B. (2005). *Principles and practice of structural equation modelling*, 2nd ed. In *Principles and practice of structural equation modelling*, 2nd ed. Guilford Press.
- Ko, D.-W., & Stewart, W. P. (2002). A structural equation model of residents' attitudes for tourism development. *Tourism Management*, 23(5), 521–30. [https://doi.org/10.1016/S0261-5177\(02\)00006-7](https://doi.org/10.1016/S0261-5177(02)00006-7)
- Kock, N & Lynn, G. S. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for Information Systems*, 13(7), 546-80. <https://doi.org/10.17705/1jais.00302>
- Kodaş, D., ARICA, R., Neşe, K., & Duman, F. (2022). Relationships between perceptions of residents toward tourism development, benefits derived from tourism and support for tourism. *Journal of Tourismology*, 8(2), 255-80.
- Lindström, K. (2020). Ambivalence in the evolution of a community-based tourism sharing concept: A public governance approach. *Scandinavian Journal of*

- Hospitality and Tourism*, 3(20), 302-15. <https://doi.org/10.1080/15022250.2020.1786455>
- Liu, J. C., & Var, T. (1986). Residents' attitudes towards tourism impacts in Hawaii. *Annals of Tourism Research*, 13(2), 193-214. [https://doi.org/10.1016/0160-7383\(86\)90037-X](https://doi.org/10.1016/0160-7383(86)90037-X)
- Liu, J., Sheldon, P. & Var, T. (1987). A cross-national approach to determining resident perceptions of the impact of tourism on the environment. *Annals of Tourism Research*, 14(1), 17-37. [https://doi.org/10.1016/0160-7383\(87\)90045-4](https://doi.org/10.1016/0160-7383(87)90045-4)
- Lohmöller, J.-B. (1989). Latent variable Path Modeling with Partial Least Squares. Springer-Verlag, New York. <https://doi.org/10.1007/978-3-642-52512-4>
- Long, P. T., Perdue, R. R., & Allen, L. (1990). Rural resident tourism perceptions and attitudes by community level of tourism. *Journal of Travel Research*, 28(3), 3-9. <https://doi.org/10.1177/004728759002800301>
- Miller, R. B., & Wichern, D. W. (1977). Intermediate business statistics: Analysis of variance, regression, and time series. New York, NY: Holt, Rinehart and Winston.
- Milman, A., & Pizam, A. (1988). Social impacts of tourism on central Florida. *Annals of Tourism Research*, 15(2), 191-204. [https://doi.org/10.1016/0160-7383\(88\)90082-5](https://doi.org/10.1016/0160-7383(88)90082-5)
- Murphy, P. E. (1985). *Tourism: A Community Approach*. New York: Methuen.
- Nazneen, S., Xu, H., & Din, N. (2019). Cross-border infrastructural development and residents' perceived tourism impacts: A case of China-Pakistan economic corridor. *Int J Tourism Res*, 3(21), 334-43. <https://doi.org/10.1002/jtr.2264>
- Ngan, N., Omar, S., & Ngoc, H. (2022). Local perceptions towards the environmental impact of tourism on the Chàm Islands, Vietnam. *Planning Malaysia*, (20). <https://doi.org/10.21837/pm.v20i23.1174>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory*. McGraw, New York.
- Pizam, A. (1978). Tourism's impacts: The social costs to the destination community as perceived by its residents. *Journal of Travel Research*, 20, 7-10. <https://doi.org/10.1177/004728758202000302>
- Ramayah, T., Lee, J. W. C. & In, J. B. C. (2011). Network collaboration and performance in the tourism sector. *Service Business*, 5, 411-28. <https://doi.org/10.1007/s11628-011-0120-z>
- Ritchie, B. W. & Inkari, M. (2006). Host community attitudes toward tourism and cultural tourism development: The case of the Lewes District, Southern England. *International Journal of Tourism Research*, 8(1), 27-44. <https://doi.org/10.1002/jtr.545>
- Ross, G. (1992). Resident perceptions of the impact of tourism on an Australian City. *Journal of Travel Research*, Winter, 13-17. <https://doi.org/10.1177/004728759203000302>
- Rothman, R. A. (1978). Residents and transients: Community reactions to seasonal visitors. *Journal of Travel Research*, 16, 8-13. <https://doi.org/10.1177/004728757801600303>
- Russo, A. P. (2001). The "vicious circle" of tourism development in heritage cities. *Annals of Tourism Research*, 29(1), 165-82. [https://doi.org/10.1016/S0160-7383\(01\)00029-9](https://doi.org/10.1016/S0160-7383(01)00029-9)
- Sirakiya E., Teye V., & Sonmez S. (2002). Tourism's Impact on Host Lifestyle Realities. In *Tourism, the State of the Art*, edited by A. V. Seaton. New York: John Wiley, pp. 826-35.
- Sanuja, K., & Joseph, S. (2022). Economic empowerment and satisfaction of Kerala women through responsible tourism entrepreneurship. *IIHS*, 11837-11850. <https://doi.org/10.53730/ijhs.v6nS3.8943>
- Sariskumar, N., & Thangamani B. (2018). The impact of responsible tourism on destination sustainability and quality of life in Passikudah tourism destination. *International Journal of Social Science and Economic Research*, 03(11), 5933-59.
- Seal, P., Seal, P., Hansen, P., & Piramanayagam, S. (2021). Stakeholder-based conjoint analysis for branding wellness tourism in Kerala, India. *Asia-Pac J Reg Sci*, 1(6), 91-111. <https://doi.org/10.1007/s41685-021-00218-3>
- Sekaran, U., & Bougie, R. (2010). *Research methods for business: A skill-building approach* (5th ed.). Haddington: John Wiley & Sons.
- Sheldon P., & Var T. (1984). Resident attitudes to tourism in North Wales. *Tourism Management*, 5(1), 40-8. [https://doi.org/10.1016/0261-5177\(84\)90006-2](https://doi.org/10.1016/0261-5177(84)90006-2)
- Sirakiya E., Teye V., & Sönmez S. (2002). Understanding residents' support for tourism development in the central

- region of Ghana. *Journal of travel research*, 41(1), 57-67. <https://doi.org/10.1177/0047287502041001007>
- Statista.com. (2022). Global travel and tourism industry - Statistics & Facts. Statista Research Department, Mar. 1, 2022. <https://www.statista.com/topics/962/global-tourism/>
- Sudheer, B. (2015). The economic and cultural impact of responsible tourism initiative in Kerala- A case study of Kumarakom Panchayath. UGC Unpublished Minor Research Project. <http://www.sncollegecherthala.in/research%5Csudheer.pdf>
- Um, S., & Crompton, J. (1987). Measuring resident's attachment levels in a host community. *Journal of Travel Research*, 26(2), 27-9. <https://doi.org/10.1177/004728758702600105>
- Vinzi, V. E., Chin, W. W., Henseler, J., & Wang, H. (2010). The handbook of partial least square: concepts, methods, and applications. Springer Berlin Heidelberg.
- Williams, A. (2010). Mass tourism, culture, and the historic city: Theoretical perspectives. *Rivista Di Scienze Del Turismo*, 1(2).